

Amendment
U.S. Patent Application No. 09/963,669

Amendments to the Specification:

Please replace the paragraph beginning on page 11, line 4 with the following amended paragraph:

--A programmable waveform generator capable of generating constant-envelope composite RF transmission signals, and suitable for use in the interleave modulation scheme of the present invention, is described in U.S. Patent Application Serial No. 09/205,510 entitled "Programmable Waveform Generator for a Global Positioning System", filed December 4, 1998, now U.S. Patent No. 6,335,951, the disclosure of which is incorporated herein by reference in its entirety. This waveform generator essentially implements an interplex modulator in accordance with the four mathematical terms that comprise equation (2). Specifically, as shown in Fig. 4, the three signal components s_1 , s_2 , and s_3 and the required intermodulation product $s_1s_2s_3$ are generated individually by a waveform generator 60 and respectively supplied as binary signals to four separate binary phase shift key (BPSK) modulators 62 where these binary signals are used to directly modulate the RF carrier in-phase and quadrature components. In particular, in accordance with equation (2), a first BPSK modulator modulates the quadrature component of the carrier $\sin(\omega t)$ with the binary signal s_1 , a second BPSK modulator modulates the in-phase component of the carrier $\cos(\omega t)$ with the binary signal s_2 , a third BPSK modulator modulates the in-phase component of the carrier $\cos(\omega t)$ with the binary signal s_3 , and a fourth BPSK modulator modulates the quadrature component of the carrier $\sin(\omega t)$ with the intermodulation product $s_1s_2s_3$.

Please replace the paragraph beginning on page 11, line 21 with the following amended paragraph:

The outputs of the four modulators are then respectively supplied to four variable attenuators 64 which respectively attenuate the four modulated signals by the four values

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$\cos(\beta_1)\cos(\beta_2)$, $[[S_2]]\sin(\beta_1)\cos(\beta_2)$, $\cos(\beta_1)\sin(\beta_2)$ and $\sin(\beta_1)\sin(\beta_2)$ to achieve the desired relative power ratios among the four signal components. The constant-envelope composite signal (i.e., the modulated RF output signal) is then formed by summing the four attenuated, modulated carrier components via combiners 66.